



Please type a plus sign (+) inside this box -> ☐

PTO/SB/21 (08-00)
Approved for use through 10/31/2002. OMB 0651-0031
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

TRANSMITTAL FORM (to be used for all correspondence after initial filing)	Application Number	09/755,437	
	Filing Date	01/05/2001	
	First Named Inventor	Richard L. McCreery	
	Group Art Unit		
	Examiner Name		
Total Number of Pages in This Submission	23	Attorney Docket Number	OSU1159-141A

RECEIVED
JUL 01 2002
Technology Center 2000

ENCLOSURES (check all that apply)		
<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment / Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/ Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Assignment Papers (for an Application) <input checked="" type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): 22 sheets of formal drawings for the above-captioned application containing Figs. 1-21
Remarks		

RECEIVED
OCT 04 2002
Technology Center 2600

COPY OF PAPERS
ORIGINALLY FILED

RECEIVED
SEP 19 2002
Technology Center 2100

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT	
Firm or Individual name	Roger A. Gilcrest
Signature	<i>[Signature]</i>
Date	May 17, 2002

RECEIVED
JUN 06 2002
TC 1700

DEC 04 2002

RECEIVED

CERTIFICATE OF MAILING	
I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, Washington, D.C. 20231 on this date: May 17, 2002	
Typed or printed name	Sheri L. Burke Paralegal
Signature	<i>[Signature]</i>
Date	May 17, 2002

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

1/22

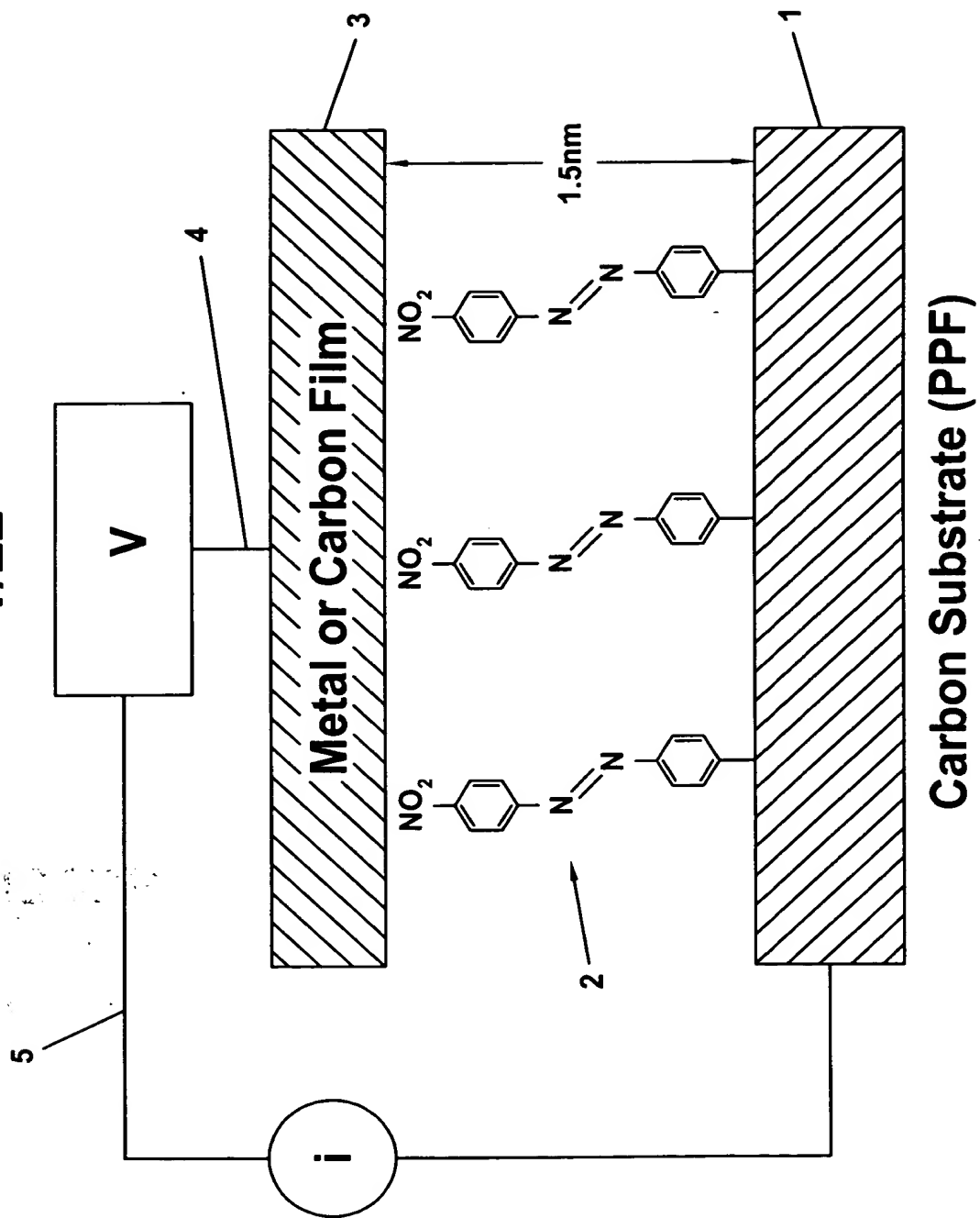
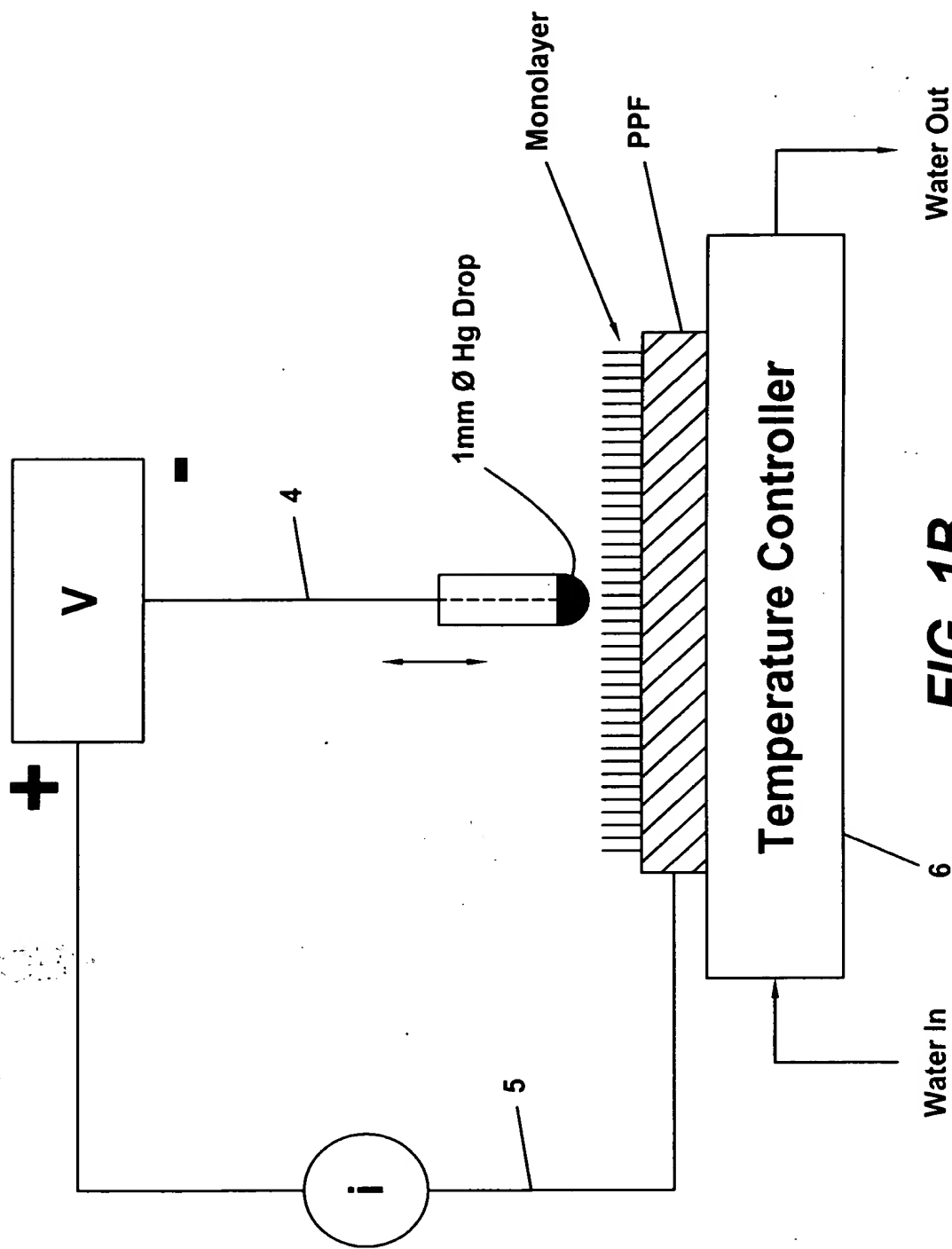


FIG. 1A

2/22



3/22

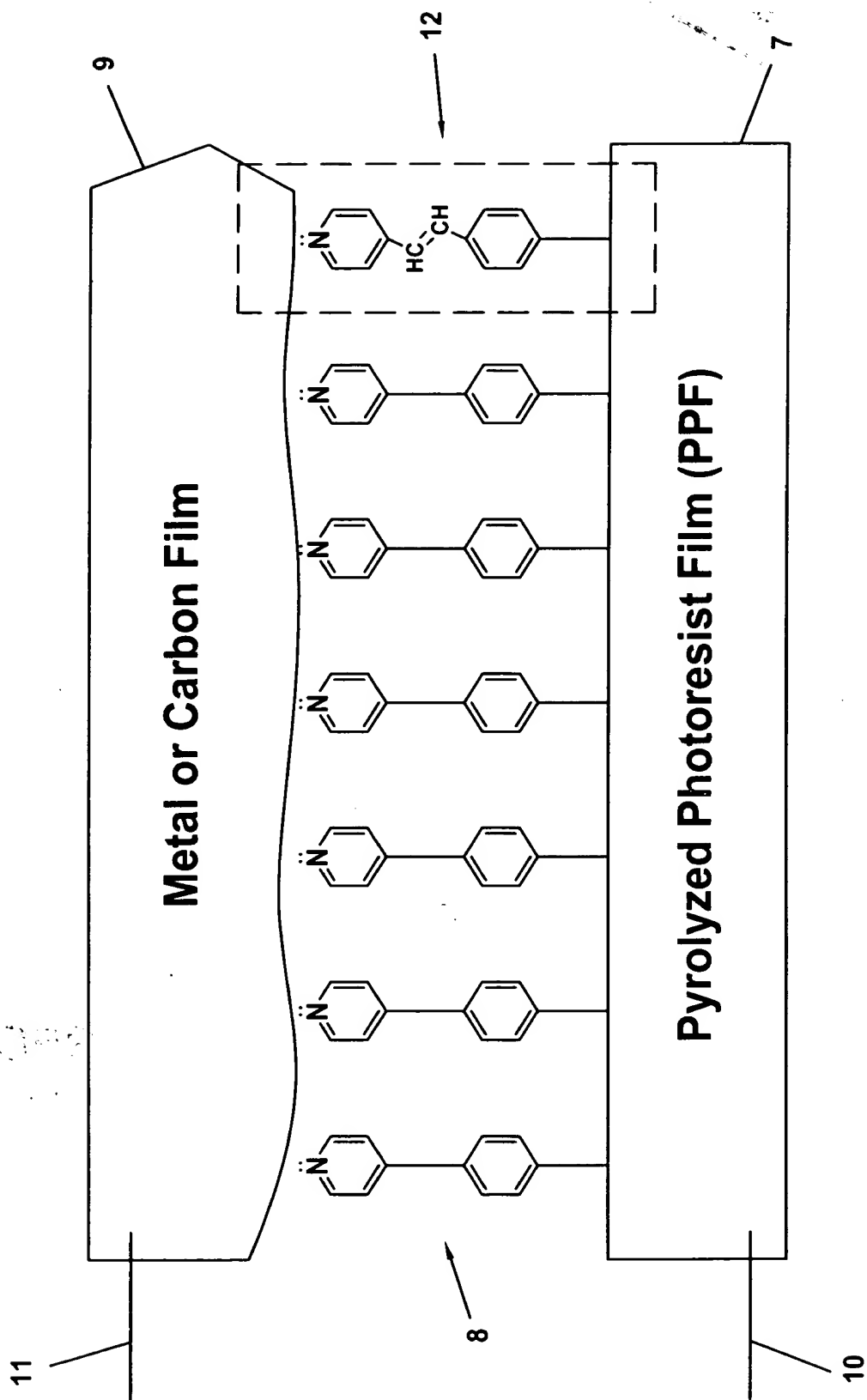


FIG. 2

4/22

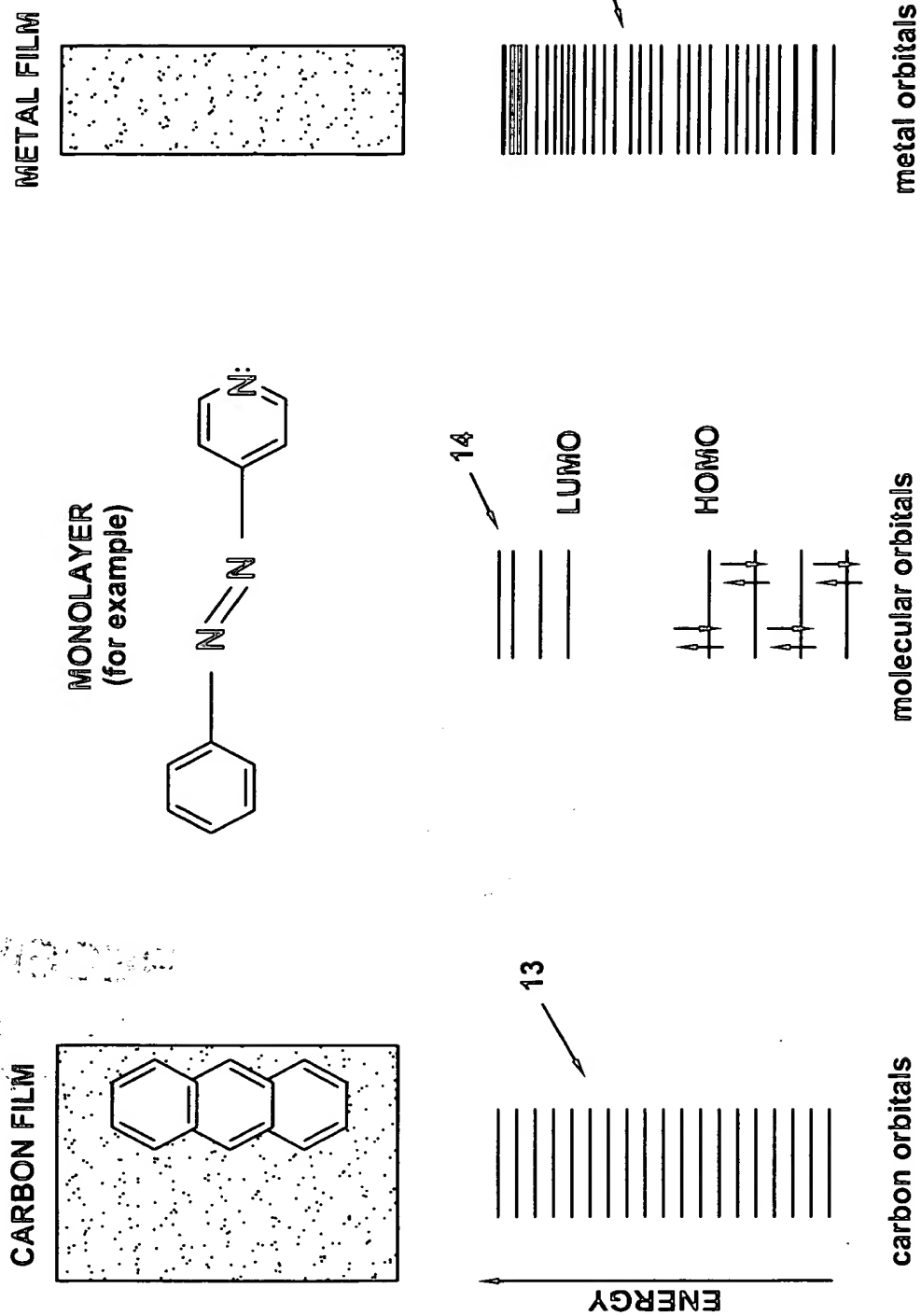
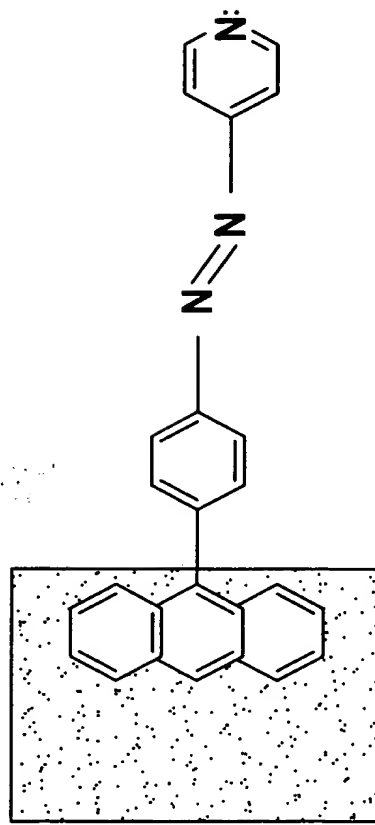


FIG. 3

5/22

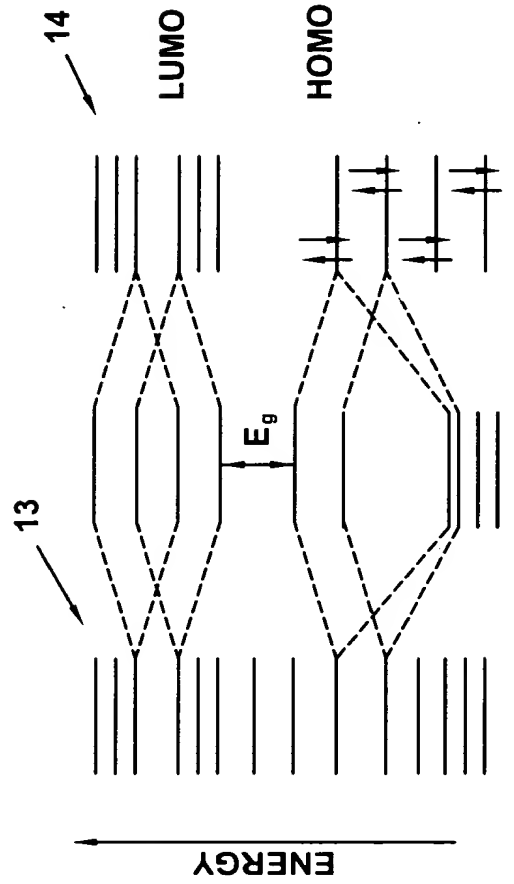
Chemically bonded organic monolayer on PPF



METAL FILM



ENERGY



metal orbitals

carbon orbitals mix with monolayer orbitals

FIG. 4

6/22

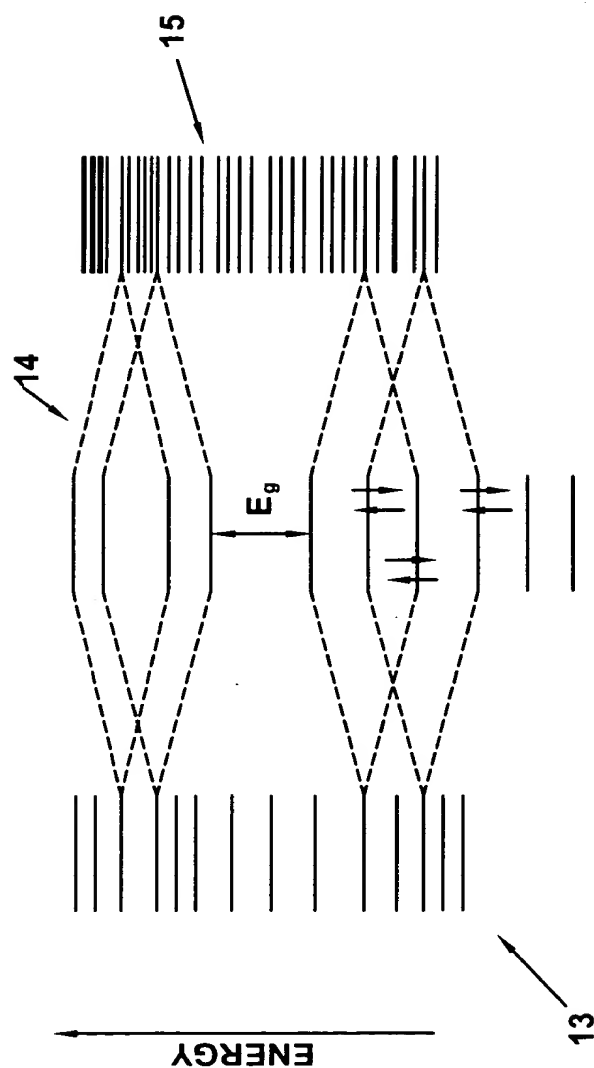
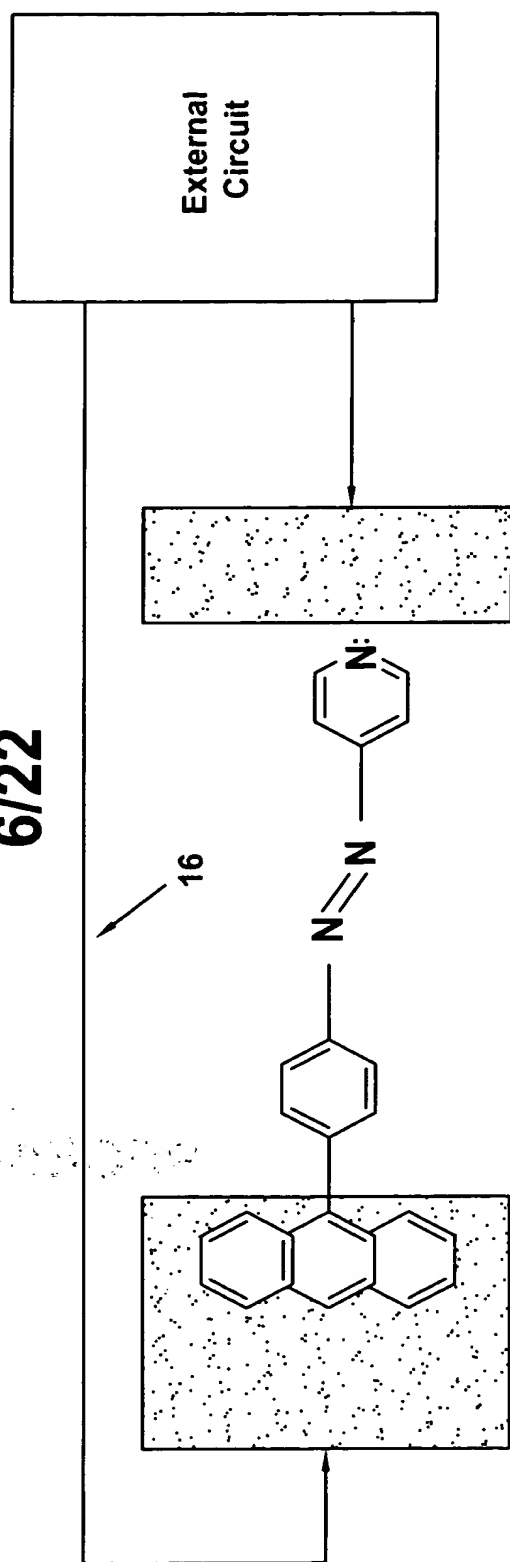


FIG. 5

7/22

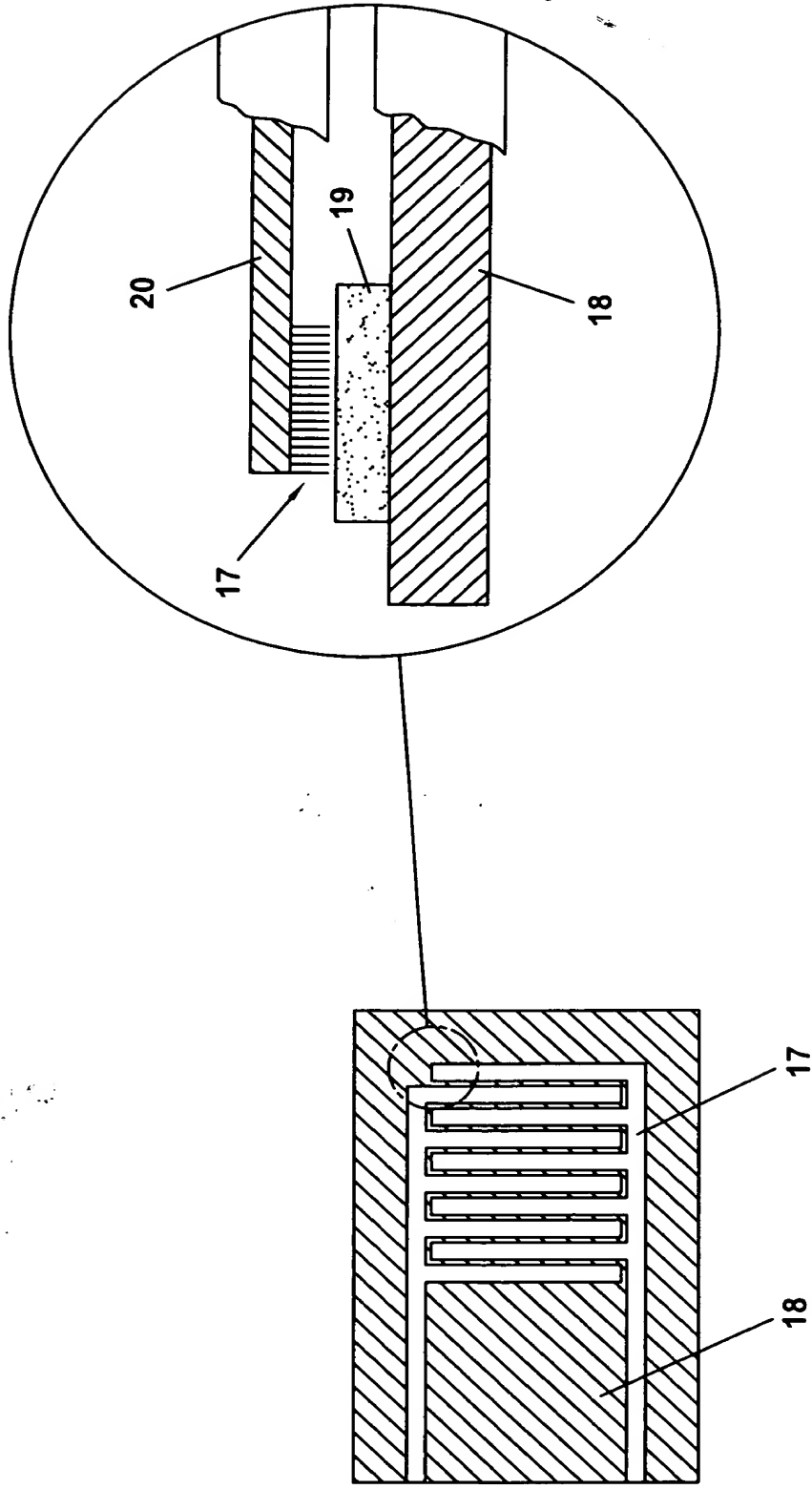


FIG. 6

8/22

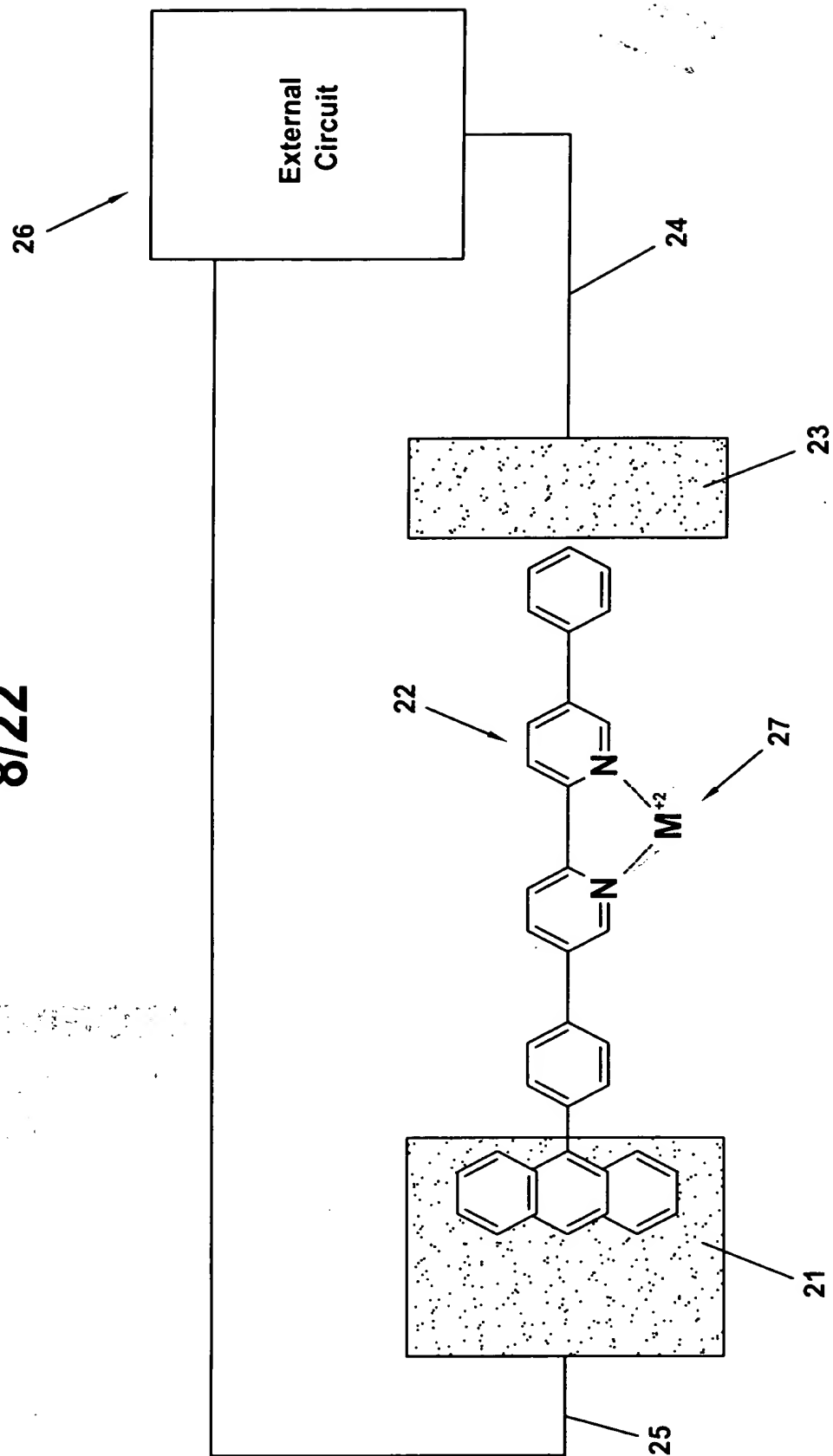


FIG. 7

9/22

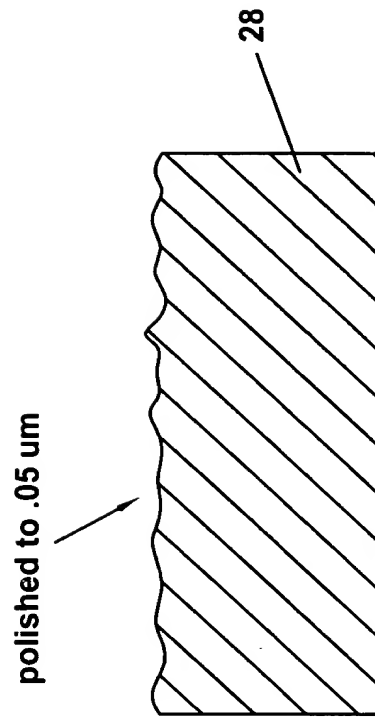
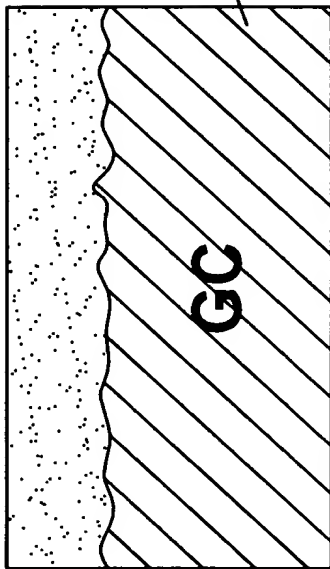


FIG. 8

10/22

29

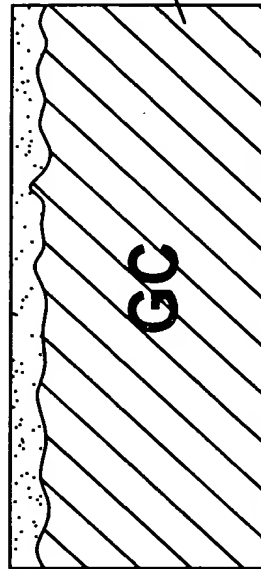


28

GC

1000°, H₂/N₂ atmosphere

30



28

GC

FIG. 9

11/22

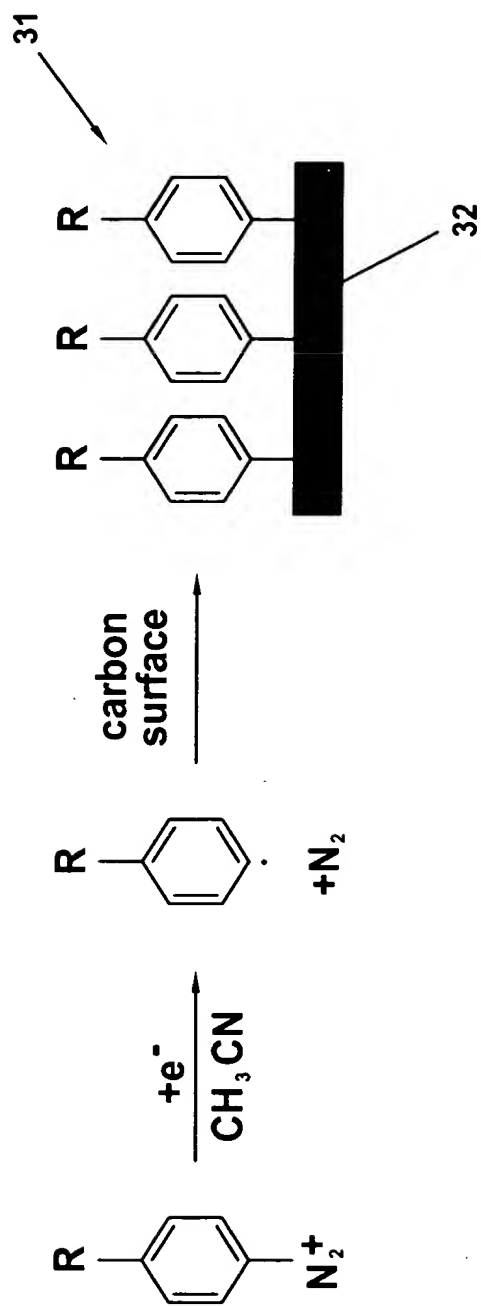


FIG. 10

12/22

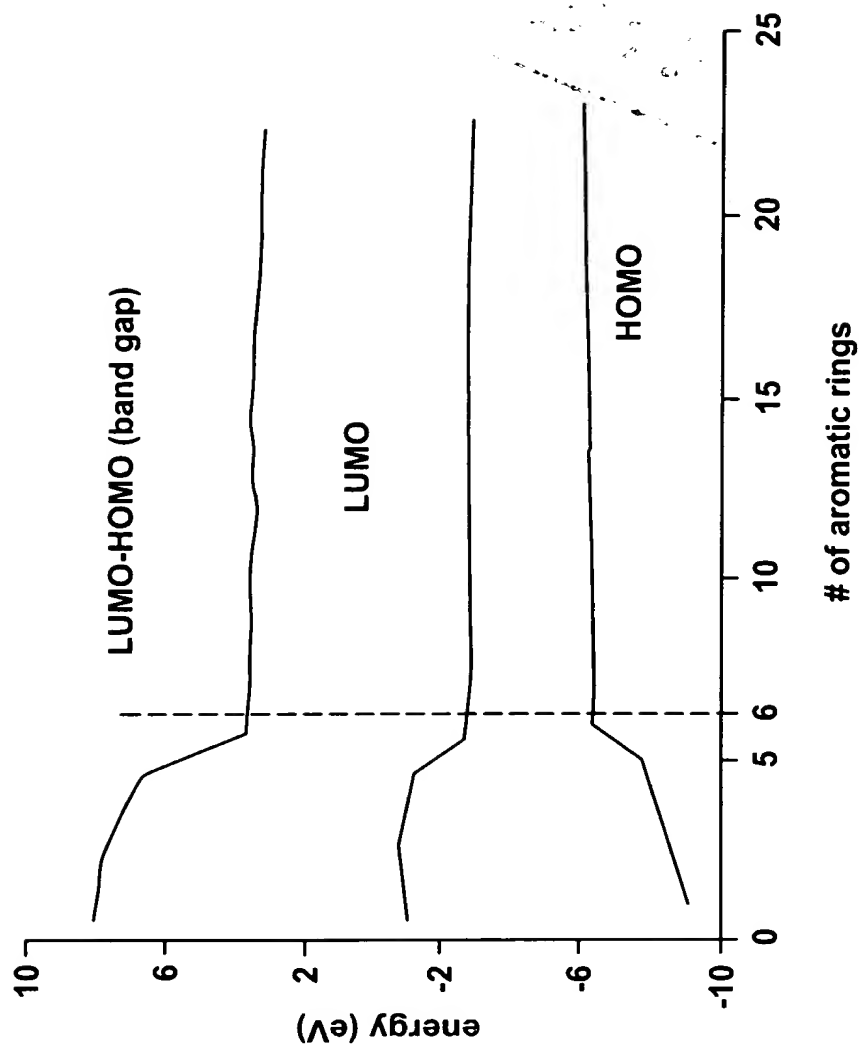
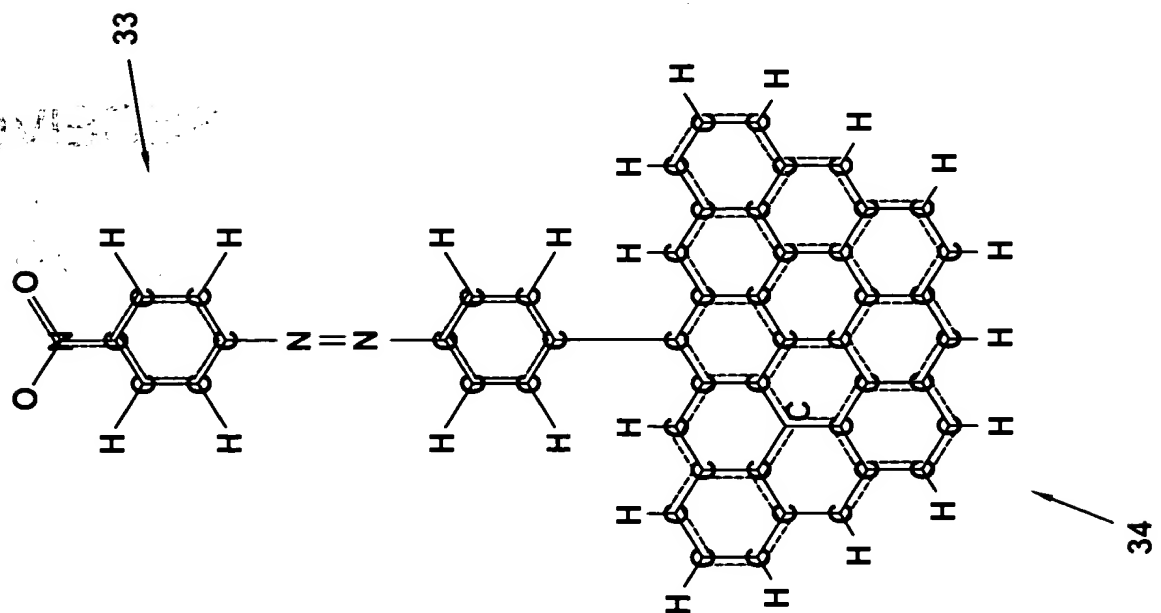


FIG. 11

13/22

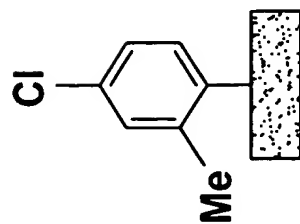
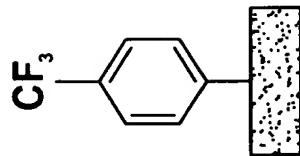
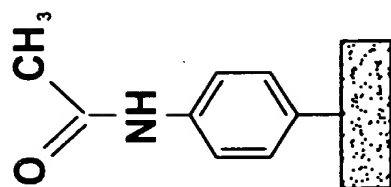
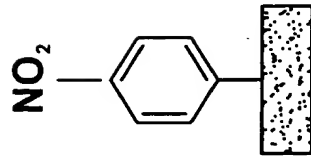
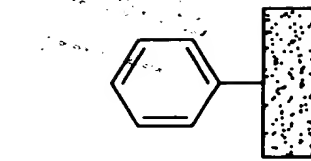
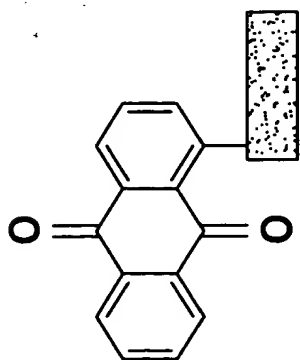
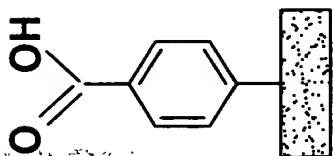
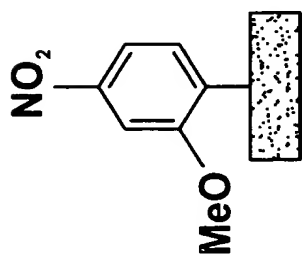
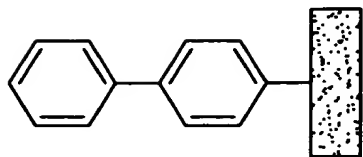
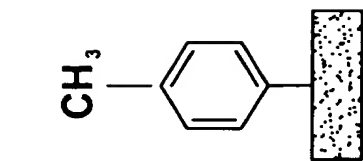


FIG. 12

14/22

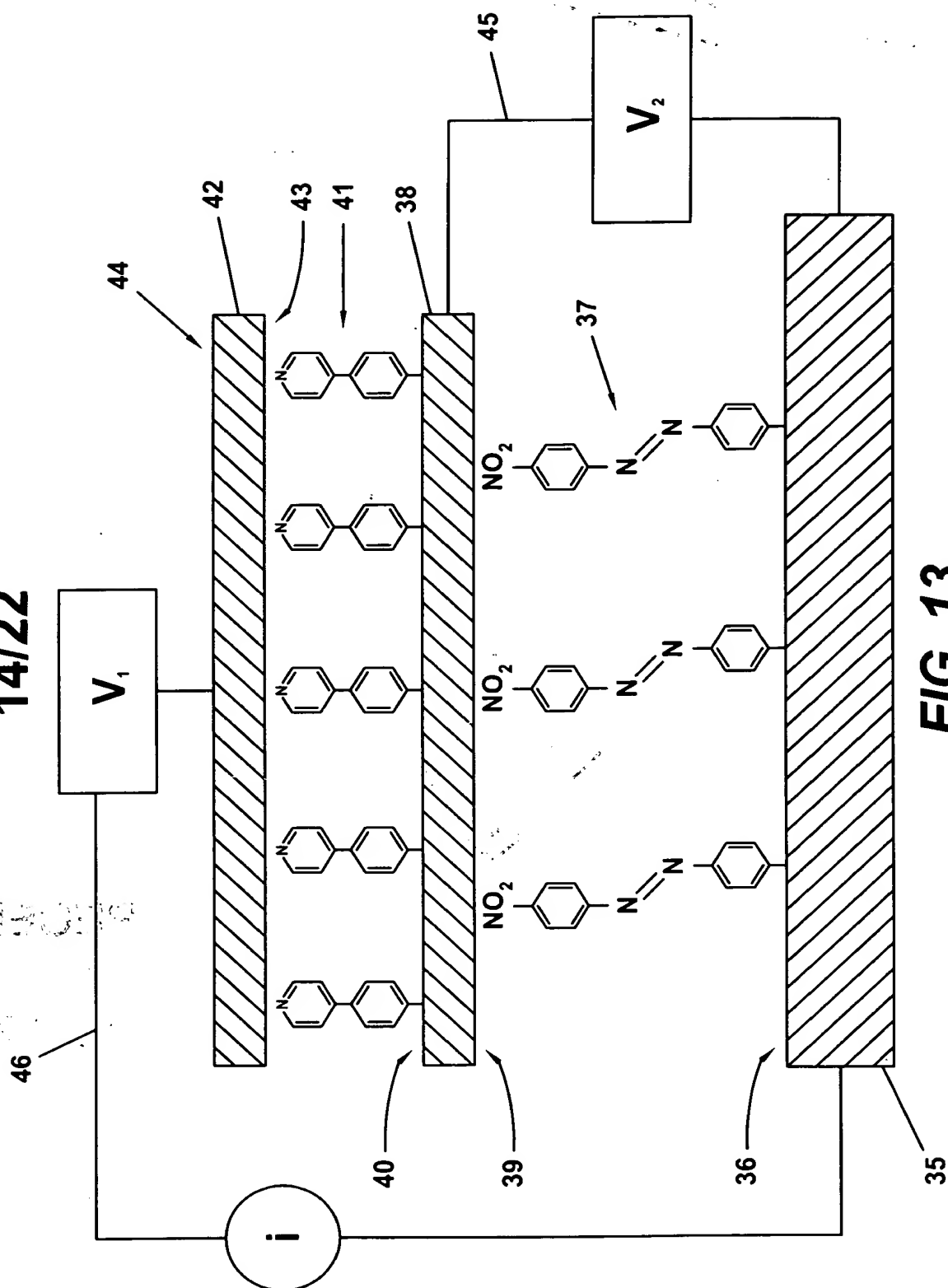
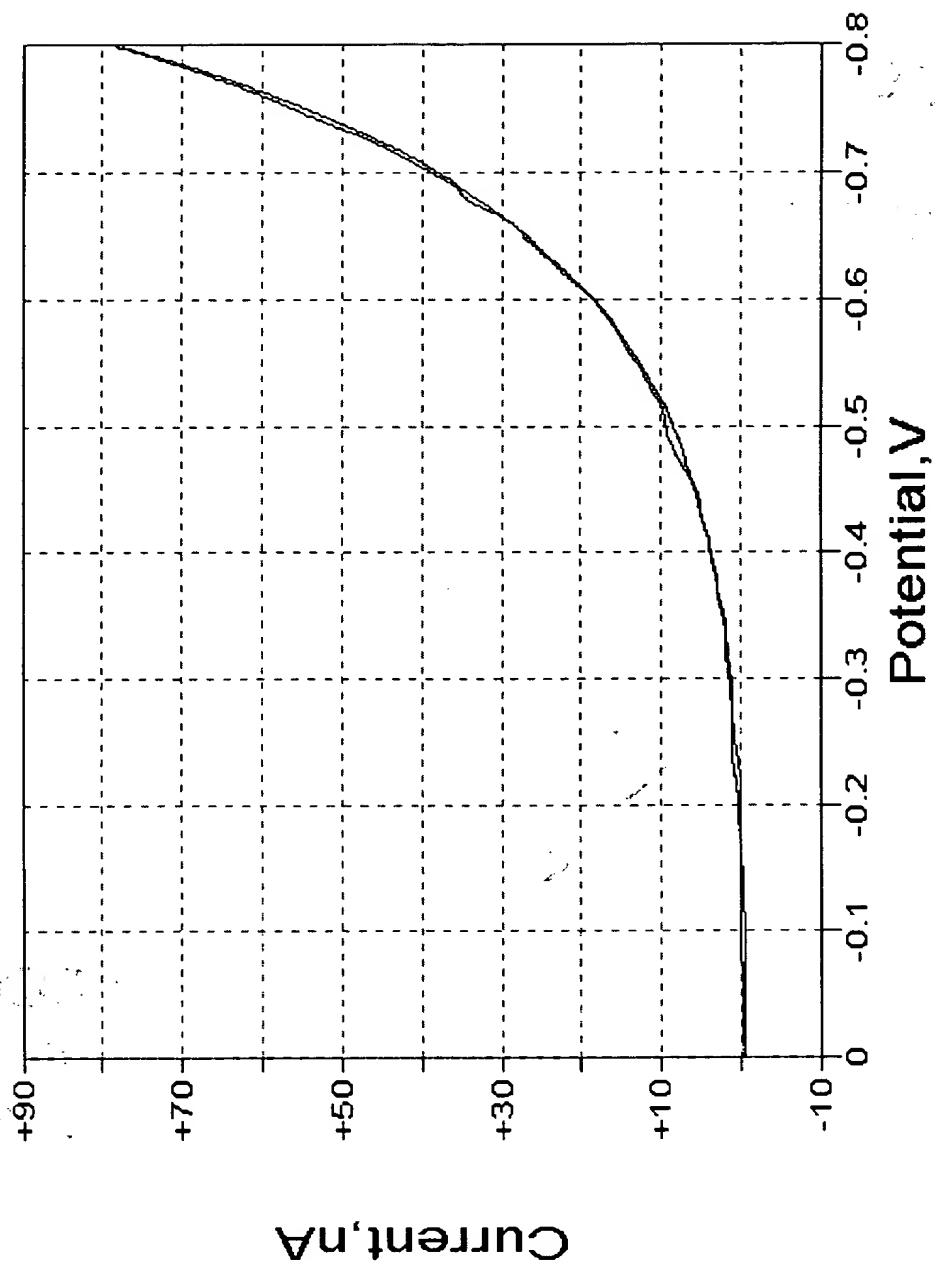


FIG. 13

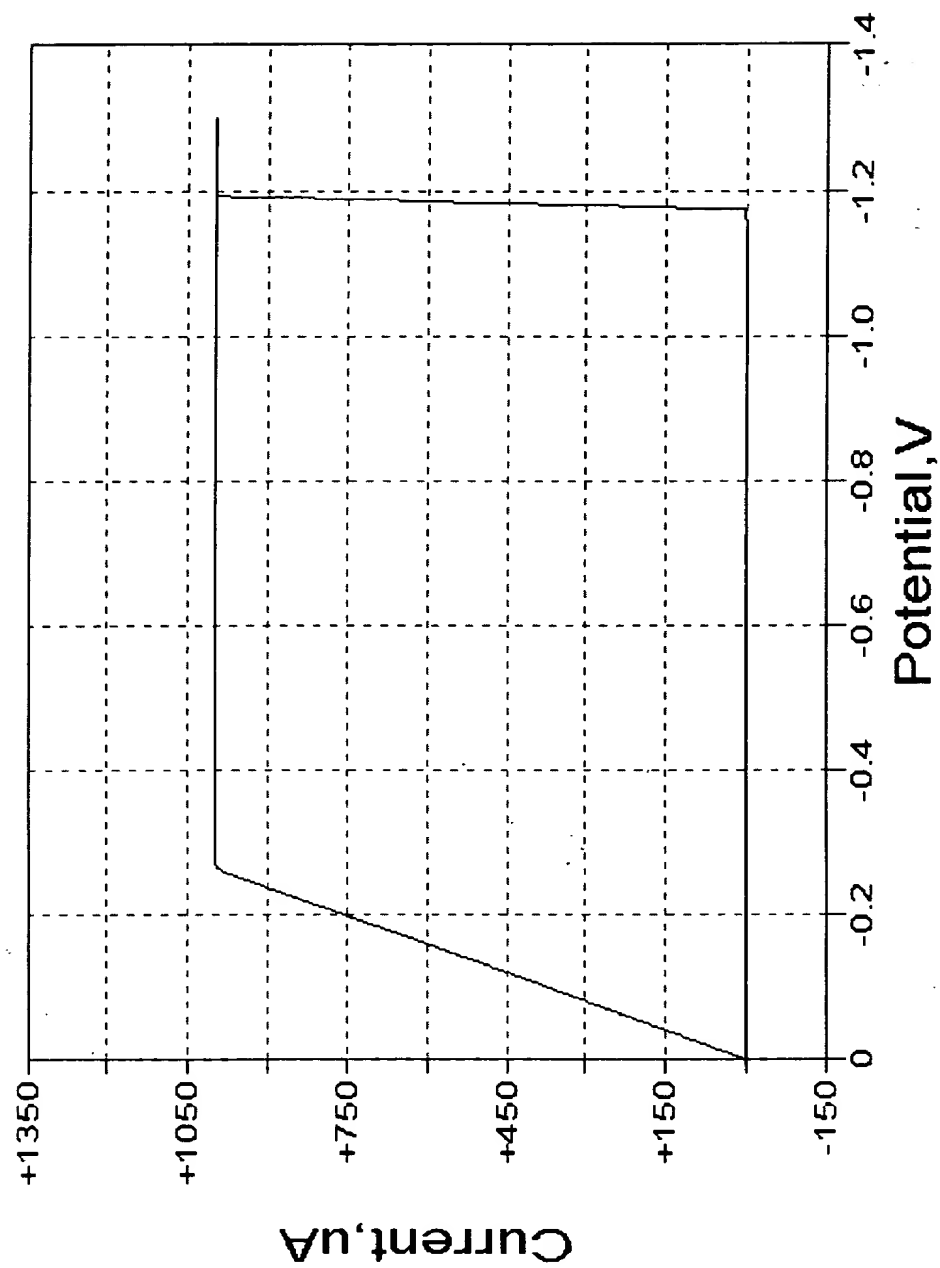
15/22



E = -330.0mV i = +5.455e-008A

FIG.14

16/22



E = -710.6mV i = +1.255e-003A

FIG.15

17/22

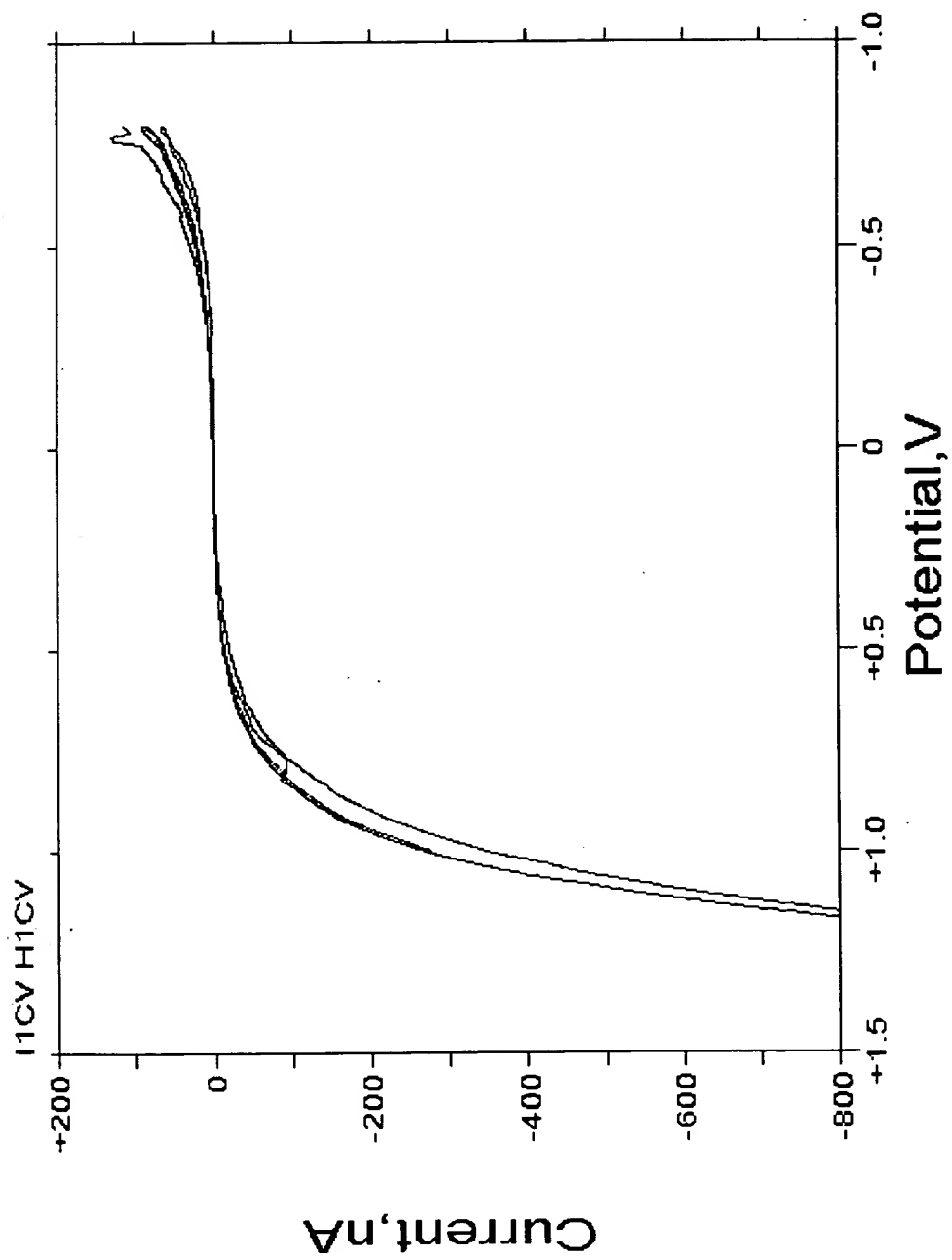


FIG.16

18/22

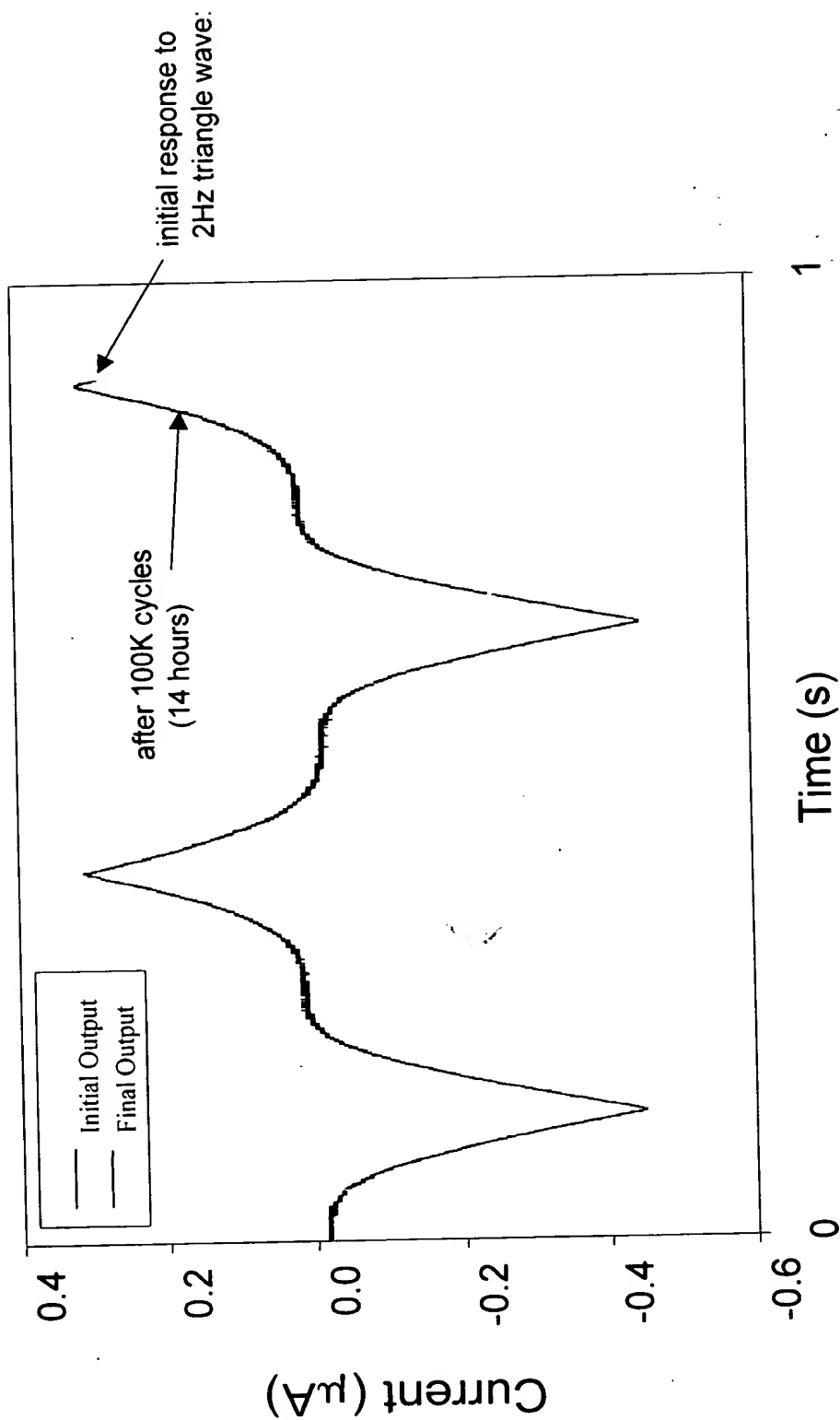


FIG.17

19/22

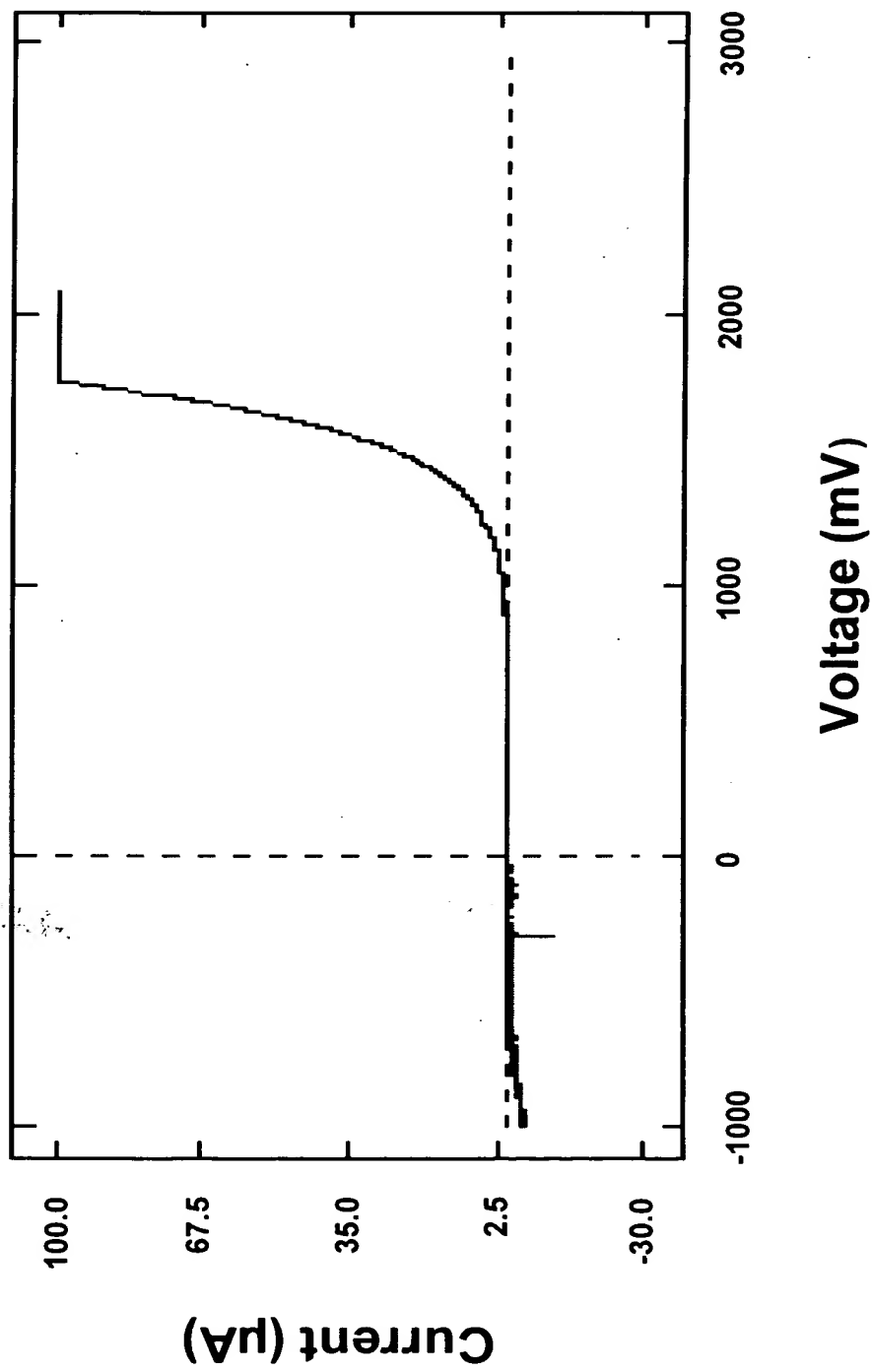


FIG.18

20/22

Voltage^{1/2}

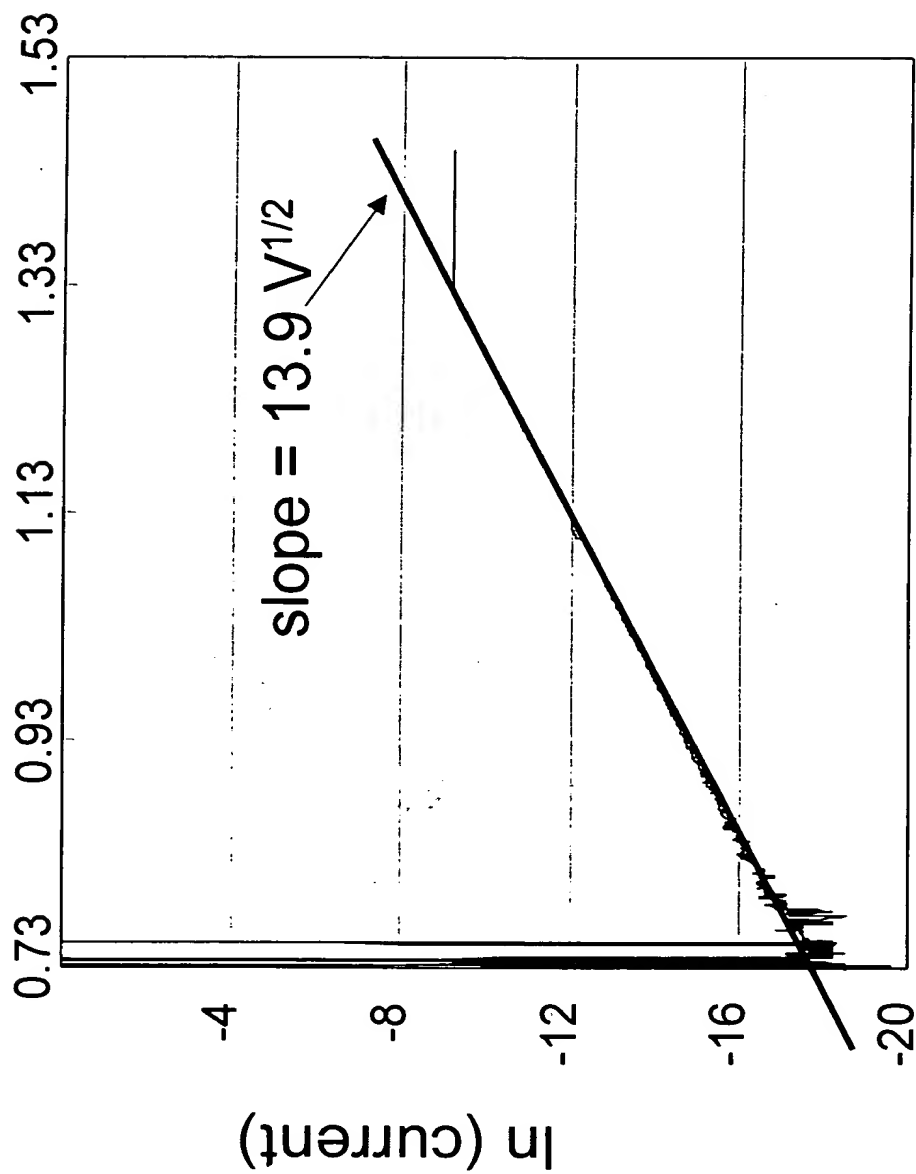


FIG.19

21/22

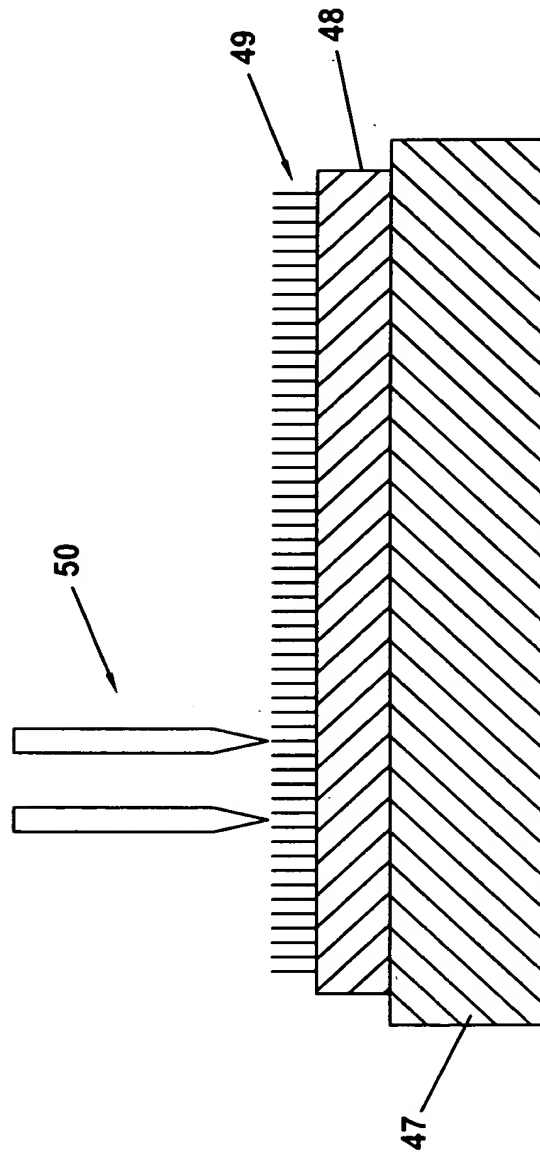


FIG. 20

22/22

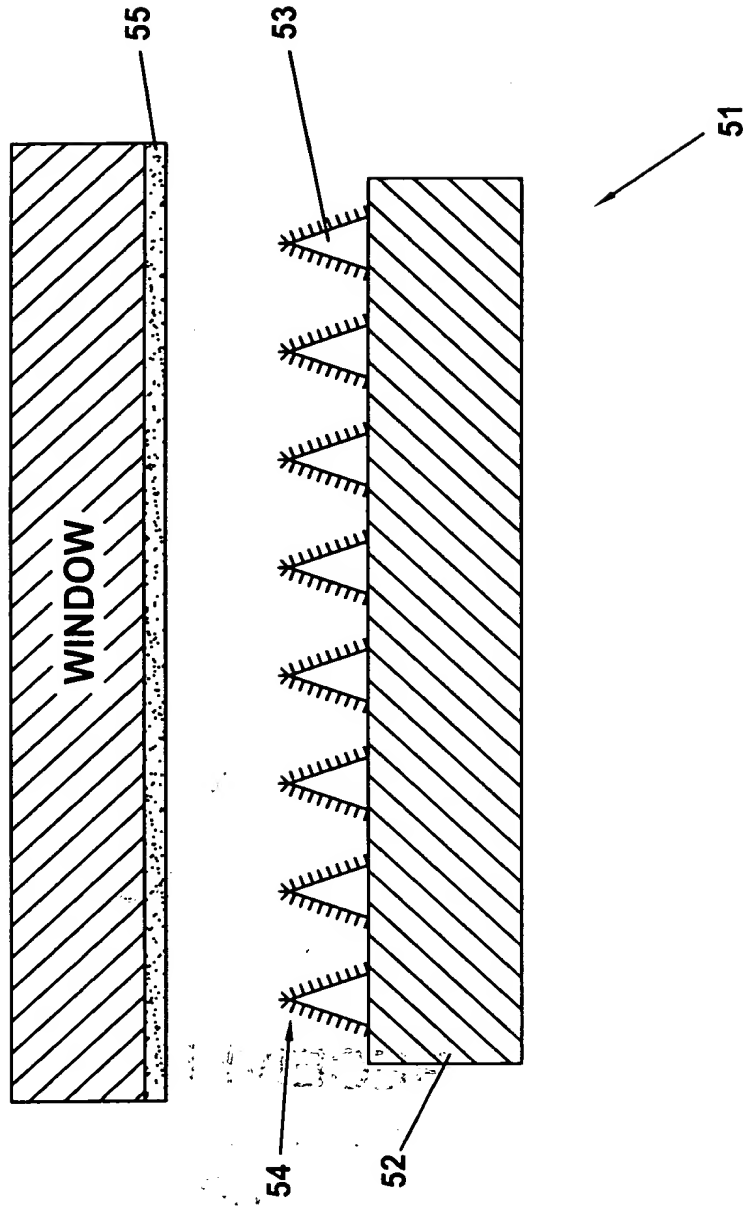


FIG. 21